

# Appendix

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## ■ Conversion Chart

### Metric Conversions

<i>To convert this</i>	<i>to this</i>	<i>multiply by</i>
<b>Length</b>		
inches . . . . .	millimeters (mm)	25.4
feet . . . . .	centimeters (cm)	39
yards . . . . .	meters (m)	.91
miles . . . . .	kilometers (km)	1.61
millimeters . . . . .	inches	.04
centimeters . . . . .	inches	.4
meters . . . . .	inches	39.37
meters . . . . .	yards	1.1
kilometers . . . . .	miles	.6
<b>Weight</b>		
ounces . . . . .	grams(g)	28
pounds . . . . .	kilograms (kg)	.45
short tons . . . . .	metric tons	.9
kilograms . . . . .	pounds	2.2
metric tons . . . . .	pounds	2,204.6
metric tons . . . . .	short tons	1.1
<b>Area</b>		
square inches . . . . .	square centimeters	6.5
square feet . . . . .	square meters	.09
square miles . . . . .	square kilometers	2.6
acres . . . . .	hectares	.4
square centimeters . . . . .	square inches	.16
square meters . . . . .	square yards	1.2
square kilometers . . . . .	square miles	.4
hectares . . . . .	acres	2.5
<b>Volume</b>		
teaspoons . . . . .	milliliters	5
tablespoons . . . . .	milliliters	15
fluid ounces . . . . .	milliliters	30
cups . . . . .	liters	.24
pints . . . . .	liters	.47
quarts . . . . .	liters	.95
gallons . . . . .	liters	3.8
cubic feet . . . . .	cubic meters	.03
cubic yards . . . . .	cubic meters	.76

<i>To convert this</i>	<i>to this</i>	<i>multiply by</i>
milliliters . . . . .	fluid ounces	.03
liters . . . . .	pints	2.1
liters . . . . .	quarts	1.06
liters . . . . .	gallons	.26
cubic meters . . . . .	cubic feet	35
cubic meters . . . . .	cubic yards	1.3
<b>Temperature</b>		
Fahrenheit . . . . .	Celsius	.56 (after subtracting 31)
Celsius . . . . .	Fahrenheit	1.82 (then add 32)
<b>Farm products</b>		
pounds per acre . . . . .	kilograms per hectare	1.14
short tons per acre . . . . .	kilograms per hectare	2.25
kilograms per hectare . . . . .	metric tons per hectare	.001
kilograms per hectare . . . . .	pounds per acre	.88
tons per hectare . . . . .	short tons per acre	.44
tons per hectare . . . . .	kilograms per hectare	1,000

### Bushel/Weight Conversions

<i>1 bushel of:</i>	<i>weight in pounds</i>	<i>weight in kilograms</i>
wheat, soybeans, potatoes . . . . .	60	27
corn, grain sorghum, rye, flaxseed . . . . .	56	25
beets, carrots . . . . .	50	23
barley, buckwheat, peaches . . . . .	48	22
oats, cottonseed . . . . .	32	14
<i>1 metric ton of:</i>	<i>weight in pounds</i>	<i>number of bushels</i>
wheat, soybeans, potatoes . . . . .	2,204.6	36.74
corn, grain sorghum, rye, flaxseed . . . . .	2,204.6	39.37
beets, carrots . . . . .	2,204.6	44.09
barley, buckwheat, peaches . . . . .	2,204.6	45.93
oats, cottonseed . . . . .	2,204.6	68.89

■ Planting and Harvesting Calendar

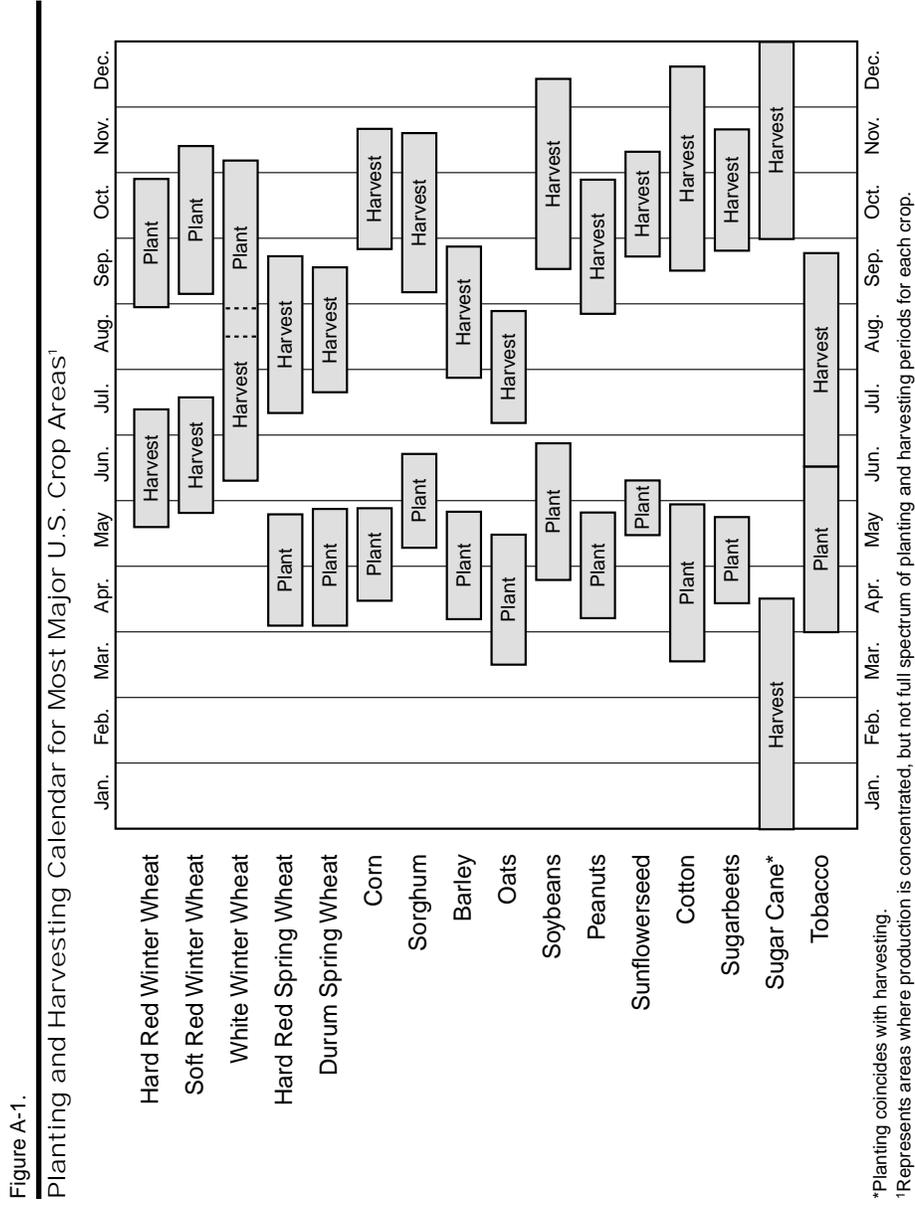


Table A-1.

Wheat: Area, yield, supply, disappearance, and prices, 1960-94<sup>1</sup>

Year beginning June 1	Area (1,000 acres)		Yield per harvested acre (bu)	Beginning stock	Supply (mil bu)		Imports <sup>1</sup>	Total	Disappearance (mil bu)		Total	Prices received by farmers (dol per bu)
	Planted	Harvested			Production	Domestic use			Exports <sup>1</sup>			
1960	54,906	51,879	26.1	1,384	1,355	8	2,747	591	654	1,245	1.74	
1961	55,707	51,571	23.9	1,502	1,232	6	2,741	604	716	1,320	1.83	
1962	49,274	43,688	25.0	1,421	1,092	5	2,518	599	649	1,248	2.04	
1963	53,364	45,506	25.2	1,270	1,147	4	2,421	581	846	1,427	1.85	
1964	55,672	49,762	25.8	993	1,283	2	2,279	635	723	1,358	1.37	
1965	57,361	49,560	26.5	921	1,316	1	2,238	725	852	1,577	1.35	
1966	54,105	49,613	26.3	660	1,305	2	1,967	683	771	1,454	1.63	
1967	67,264	58,353	25.8	513	1,508	1	2,021	626	765	1,391	1.39	
1968	61,860	54,765	28.4	630	1,557	1	2,188	740	544	1,284	1.24	
1969	53,450	47,146	30.6	904	1,443	3	2,350	764	603	1,367	1.25	
1970	48,739	43,564	31.0	983	1,352	1	2,336	772	741	1,513	1.33	
1971	53,822	47,685	33.9	823	1,619	1	2,442	849	610	1,459	1.34	
1972	54,913	47,303	32.7	983	1,546	1	2,531	799	1,135	1,934	1.76	
1973	59,254	54,148	31.6	597	1,711	3	2,311	753	1,217	1,970	3.95	
1974	71,044	65,368	27.3	340	1,782	3	2,125	672	1,018	1,690	4.09	
1975	74,900	69,499	30.6	435	2,127	2	2,584	726	1,173	1,899	3.56	
1976	80,395	70,927	30.3	666	2,149	3	2,817	754	950	1,704	2.73	
1977	75,410	66,686	30.7	1,113	2,046	2	3,161	859	1,124	1,983	2.33	
1978	65,989	56,495	31.4	1,178	1,776	2	2,955	837	1,194	2,031	2.98	
1979	71,424	62,454	34.2	924	2,134	2	3,060	783	1,375	2,158	3.80	
1980	80,788	71,125	33.5	902	2,381	3	3,285	783	1,514	2,296	3.99	
1981	88,251	81,642	34.5	989	2,785	3	3,777	847	1,771	2,618	3.69	
1982	86,232	77,937	35.5	1,159	2,765	8	3,932	908	1,509	2,417	3.45	

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Table A-1 continued.

Wheat: Area, yield, supply, disappearance, and prices, 1960-94<sup>1</sup>

Year beginning June 1	Area (1,000 acres)		Yield per harvested acre (bu)	Beginning stock	Supply (mil bu)		Imports <sup>1</sup>	Total	Disappearance (mil bu)		Prices received by farmers (dol per bu)
	Planted	Harvested			Production	Domestic use			Exports <sup>1</sup>	Total	
1983	76,419	61,390	39.4	1,515	2,420	4	3,939	1,114	1,426	2,540	3.51
1984	79,213	66,928	38.8	1,399	2,595	9	4,003	1,156	1,421	2,578	3.39
1985	75,575	64,734	37.5	1,425	2,424	16	3,866	1,051	909	1,961	3.08
1986	72,068	60,723	34.4	1,905	2,091	21	4,017	1,197	999	2,196	2.42
1987	65,834	55,945	37.7	1,821	2,108	16	3,945	1,096	1,588	2,684	2.57
1988	65,829	53,189	34.1	1,261	1,812	23	3,096	979	1,415	2,394	3.72
1989	76,615	62,189	32.7	702	2,037	23	2,761	992	1,232	2,224	3.72
1990	77,041	69,103	39.5	537	2,730	36	3,303	1,365	1,070	2,435	2.61
1991	69,881	57,803	34.3	868	1,980	41	2,889	1,132	1,282	2,414	3.00
1992	72,219	62,761	39.3	475	2,467	70	3,002	1,127	1,354	2,481	3.24 <sup>2</sup>
1993	72,168	62,712	38.2	531	2,396	109	3,036	1,239	1,228	2,467	3.26
1994 <sup>2</sup>	70,421	61,771	37.6	569	2,321	90	2,979	1,238	1,250	2,488	3.45

<sup>1</sup>Imports and exports include flour and other products expressed in wheat equivalents. <sup>2</sup>Projected, April 1995.

Table A-2.

Corn (grain only): Area, yield, supply, disappearance, and prices, 1960-94<sup>1</sup>

Year <sup>a</sup>	Area (1,000 acres)				Supply (mil bu)				Disappearance (mil bu)		Prices received by farmers (dol per bu)
	Planted for all purpose	Harvested for grain	Yield per harvested acre (bu)	Beginning stock	Production	Imports	Total	Domestic use	Exports <sup>b</sup>	Total	
1960	81,425	71,422	54.7	1,787	3,907	1	5,696	3,387	292	3,679	1.00
1961	65,919	57,634	62.4	2,016	3,598	1	5,615	3,527	435	3,962	1.10
1962	65,017	55,726	64.7	1,653	3,606	1	5,260	3,479	416	3,895	1.12
1963	68,771	59,227	67.9	1,365	4,019	1	5,385	3,348	500	3,848	1.11
1964	65,823	55,369	62.9	1,537	3,484	1	5,022	3,305	570	3,875	1.17
1965	65,171	55,392	74.1	1,147	4,103	1	5,251	3,722	687	4,409	1.16
1966	66,347	57,002	73.1	842	4,168	1	5,011	3,698	487	4,184	1.24
1967	71,156	60,694	80.1	826	4,860	1	5,687	3,885	633	4,518	1.03
1968	65,126	55,980	79.5	1,169	4,450	1	5,620	3,966	536	4,502	1.08
1969	64,264	54,574	85.9	1,118	4,687	1	5,806	4,189	612	4,801	1.16
1970	66,863	57,358	72.4	1,005	4,152	4	5,161	3,978	517	4,495	1.33
1971	74,179	64,123	88.1	667	5,646	1	6,314	4,392	796	5,187	1.08
1972	67,126	57,513	97.0	1,127	5,580	1	6,708	4,742	1,258	6,000	1.57
1973	72,253	62,143	91.3	708	5,671	1	6,380	4,653	1,243	5,896	2.55
1974	77,935	65,405	71.9	484	4,701	2	5,187	3,677	1,149	4,826	3.02
1975	78,719	67,625	86.4	558	5,841	2	6,400	4,103	1,664	5,767	2.54
1976	84,588	71,506	88.0	633	6,289	2	6,925	4,144	1,645	5,789	2.15
1977	84,328	71,614	90.8	1,136	6,505	2	7,643	4,311	1,896	6,207	2.02
1978	81,675	71,930	101.0	1,436	7,268	1	8,705	4,882	2,113	6,995	2.25
1979	81,394	72,400	109.5	1,710	7,928	1	9,638	5,203	2,402	7,604	2.48
1980	84,043	72,961	91.0	2,034	6,639	1	8,675	4,891	2,391	7,282	3.12
1981	84,097	74,524	108.9	1,392	8,119	1	9,511	4,978	1,997	6,975	2.47

Table A-2 continued.

Corn (grain only): Area, yield, supply, disappearance, and prices, 1960-94<sup>1</sup>

Year <sup>a</sup>	Area (1,000 acres)		Yield per harvested acre (bu)	Supply (mil bu)			Disappearance (mil bu)		Prices received by farmers (dol per bu)		
	Planted for all purpose	Harvested for grain		Beginning stock	Production	Imports	Total	Domestic use		Exports <sup>b</sup>	
1982	81,857	72,719	113.2	2,537	8,235	1	10,772	5,428	1,821	7,249	2.55
1983	60,207	51,479	81.1	3,523	4,174	2	7,699	4,806	1,886	6,693	3.21
1984	80,517	71,897	106.7	1,006	7,672	2	8,680	5,182	1,850	7,032	2.63
1985	83,398	75,209	118.0	1,648	8,875	10	10,534	5,267	1,227	6,494	2.23
1986	76,580	68,907	119.4	4,040	8,226	2	12,267	5,893	1,492	7,385	1.50
1987	66,200	59,505	119.8	4,882	7,131	4	12,016	6,041	1,716	7,757	1.94
1988	67,717	58,250	84.6	4,259	4,929	3	9,191	5,232	2,026	7,260	2.54
1989	72,322	64,783	116.3	1,930	7,532	2	9,464	5,752	2,368	8,120	2.36
1990	74,166	66,952	118.5	1,344	7,934	3	9,282	6,036	1,725	7,761	2.28
1991	75,957	68,822	108.6	1,521	7,475	20	9,046	6,332	1,584	7,916	2.37
1992	79,311	72,077	131.5	1,100	9,477	7	10,584	6,808	1,663	8,471	2.07
1993	73,235	62,921	100.7	2,113	6,336	21	8,470	6,292	1,328	7,620	2.50
1994 <sup>4</sup>	79,158	72,917	138.6	850	10,103	10	10,963	7,350	2,025	9,375	2.25

<sup>1</sup>Revised data, 1979-82.<sup>2</sup>Marketing year beginning October 1, 1960-1974; September 1 marketing year from 1975 to date.<sup>3</sup>Grain and grain equivalent of corn products.<sup>4</sup>As of April 1995.

Table A-3.

Soybeans: Area, yield, supply, disappearance, and prices, 1960-94<sup>1</sup>

Year beginning Sept. 1	Area (1,000 acres)		Yield per harvested acre (bu)	Supply (mil bu)		Seed, feed residual	Disappearance (mil bu)			Prices received by farmers (dol per bu)	
	Planted	Harvested		Beginning stock	Production		Total	Exports	Crushed (mil bu)		Total
1960	24,440	23,655	23.5	51.8	555.1	606.9	39	134.7	406.1	579.8	2.13
1961	27,787	27,003	25.1	27.1	678.6	705.7	47	149.4	431.4	627.4	2.28
1962	28,418	27,608	24.2	78.3	669.2	747.5	48	180.5	472.8	701.5	2.34
1963	29,462	28,615	24.4	46.0	699.2	745.2	54	187.2	436.8	677.9	2.51
1964	31,721	30,793	22.8	67.3	700.9	768.2	47	212.2	479.0	738.5	2.62
1965	35,227	34,449	24.5	29.7	845.6	875.3	52	250.6	537.5	839.7	2.54
1966	37,294	36,546	25.4	35.6	928.5	964.1	53	261.6	559.4	874.0	2.75
1967	40,819	39,805	24.5	90.1	976.4	1,066.6	57	266.6	576.4	900.2	2.49
1968	42,265	41,391	26.7	166.3	1,107.0	1,273.3	53	286.8	605.9	946.4	2.43
1969	42,534	41,337	27.4	326.8	1,131.1	1,458.0	58	432.6	737.3	1,228.0	2.35
1970	43,082	42,249	26.7	229.8	1,127.1	1,356.9	64	433.8	760.1	1,258.2	2.85
1971	43,476	42,705	27.5	98.8	1,176.1	1,274.9	65	416.8	720.4	1,202.9	3.03
1972	46,866	45,683	27.8	72.0	1,201.0	1,273.0	12	479.4	721.8	1,213.0	4.37
1973	56,549	55,667	27.8	59.6	1,548.0	1,608.0	77	539.1	821.3	1,436.4	5.68
1974	52,479	51,341	23.7	170.8	1,216.3	1,387.0	77	420.7	701.3	1,198.9	6.64
1975	54,590	53,617	28.9	188.2	1,549.0	1,735.5	71	555.1	865.1	1,490.6	4.92
1976	50,269	49,401	26.1	244.9	1,288.6	1,533.5	77	564.1	790.2	1,429.6	6.81
1977	58,978	57,830	30.6	102.9	1,767.3	1,870.2	82	700.5	926.7	1,709.0	5.88
1978	64,708	63,663	29.4	161.2	1,868.7	2,029.9	97	739.2	1,018.0	1,854.2	6.66
1979	71,411	70,343	32.1	176.0	2,261.0	2,437.0	81	875.0	1,123.0	2,079.0	6.28
1980	69,930	67,813	26.5	358.0	1,798.0	2,156.0	99	724.0	1,020.0	1,843.0	7.57
1981	67,543	66,163	30.1	313.0	1,989.0	2,302.0	89	929.0	1,030.0	2,048.0	6.07

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Table A-3 continued.

Soybeans: Area, yield, supply, disappearance, and prices, 1960-94<sup>1</sup>

Year beginning Sept. 1	Area (1,000 acres)		Yield per harvested acre (bu)	Supply (mil bu)			Disappearance (mil bu)			Prices received by farmers (dol per bu)	
	Planted	Harvested		Beginning stock	Production	Total	Exports	Crushed (mil bu)	Total		
1982	70,884	69,442	31.5	254.0	2,190.0	2,444.0	86	905.0	1,108.0	2,099.0	5.71
1983	63,779	62,525	26.2	345.0	1,636.0	1,981.0	79	743.0	983.0	1,805.0	7.83
1984	67,755	66,113	28.1	176.0	1,861.0	2,037.0	93	598.0	1,030.0	1,721.0	5.84
1985	63,145	61,599	34.1	316.0	2,099.0	2,415.0	86	740.0	1,053.0	1,879.0	5.05
1986	60,405	58,312	33.3	536.0	1,943.0	2,479.0	106	757.0	1,179.0	2,042.0	4.78
1987	58,180	57,172	33.9	436.0	1,938.0	2,374.0	97	802.0	1,174.0	2,072.0	5.88
1988	58,840	57,373	27.0	302.0	1,549.0	1,855.0	88	527.0	1,058.0	1,673.0	7.42
1989	60,820	59,538	32.3	182.0	1,924.0	2,109.0	101	623.0	1,146.0	1,870.0	5.69
1990	57,795	56,512	34.1	239.0	1,926.0	2,168.0	95	557.0	1,187.0	1,839.0	5.74
1991	59,180	58,011	34.2	329.0	1,987.0	2,319.0	103	684.0	1,254.0	2,041.0	5.58
1992	59,180	58,233	37.6	278	2,190	2,471	130	770	1,279	2,179	5.56
1993	60,135	57,347	32.6	292	1,871	2,170	100	589	1,272	1,961	6.40
1994 <sup>1</sup>	61,940	61,129	41.9	209	2,558	2,775	170	800	1,370	2,340	5.40

<sup>1</sup>As of April 1995.

Table A-4.

Cotton (all kinds): Area, yield, supply, disappearance, and prices, 1964-94

Year <sup>1</sup>	Area (1,000 acres)		Yield per acre harvested (pounds)	Beginning stock	Supply (1,000 bales)			Disappearance (1,000 bales)		Prices received by farmers <sup>2</sup> (cents per pound)	
	Planted	Harvested			Production	Imports	Total	Domestic mill use	Exports		Total
1964	14,835	14,055	517	12,351	15,144	118	27,613	9,261	4,195	13,456	31.0
1965	14,152	13,615	527	14,249	14,951	118	29,318	9,596	3,035	12,631	29.3
1966	10,349	9,552	480	17,028	9,555	105	26,688	9,574	4,832	14,406	21.7
1967	9,448	7,997	447	12,344	7,443	149	19,936	9,077	4,361	13,438	26.7
1968	10,912	10,160	516	6,584	10,925	68	17,577	8,332	2,825	11,157	23.1
1969	11,882	11,058	434	6,544	9,990	52	16,586	8,114	2,878	10,992	22.0
1970	11,945	11,155	438	5,843	10,192	37	16,072	8,204	3,897	12,101	22.9
1971	12,355	11,471	438	4,203	10,477	72	14,752	8,259	3,385	11,644	28.2
1972	14,001	12,984	507	3,258	13,704	34	16,996	7,769	5,311	13,080	27.3
1973	12,480	11,970	520	4,221	12,974	48	17,243	7,472	6,123	13,595	44.6
1974	13,679	12,547	441	3,808	11,540	34	15,382	5,860	3,926	9,786	42.9
1975	9,478	8,796	453	5,708	8,302	92	14,102	7,250	3,311	10,561	51.3
1976	11,636	10,914	465	3,681	10,581	38	14,300	6,674	4,784	11,458	64.1
1977	13,680	13,275	520	2,928	14,389	5	17,322	6,483	5,484	11,967	52.3
1978	13,375	12,400	420	5,347	10,856	4	16,207	6,352	6,180	12,532	58.4
1979	13,978	12,831	547	3,958	14,629	5	18,592	6,506	9,229	15,735	62.5
1980	14,534	13,215	404	3,000	11,122	27	14,149	5,891	5,926	11,817	74.7
1981	14,330	13,841	542	2,668	15,646	26	18,340	5,264	6,567	11,831	54.3
1982	11,345	9,734	590	6,632	11,963	20	18,615	5,512	5,207	10,719	59.4
1983	7,926	7,348	508	7,937	7,771	12	15,721	5,928	6,786	12,714	66.4
1984	11,145	10,379	600	2,775	12,982	25	15,781	5,540	6,215	11,755	57.8
1985	10,685	10,229	630	4,102	13,432	33	17,567	6,399	1,960	8,359	56.3

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Table A-4 continued.

Cotton (all kinds): Area, yield, supply, disappearance, and prices, 1964-94

Year <sup>1</sup>	Area (1,000 acres)		Yield per harvested acre (pounds)	Supply (1,000 bales)			Disappearance (1,000 bales)		Prices received by farmers <sup>2</sup> (cents per pound)		
	Planted	Harvested		Beginning stock	Production	Imports	Total	Domestic mill use		Exports	Total
1986	10,045	8,468	552	9,348	9,731	3	19,082	7,452	6,684	14,136	52.4
1987	10,397	10,030	706	5,026	14,760	2	19,788	7,617	6,582	14,199	64.3
1988	12,515	11,948	619	5,771	15,411	5	21,187	7,782	6,148	13,930	56.6
1989	10,587	9,538	614	7,092	12,196	2	19,290	8,759	7,694	16,453	66.2
1990	12,348	11,732	634	3,000	15,505	4	18,509	8,657	7,793	16,450	67.1
1991	14,052	12,960	652	2,344	17,614	13	19,971	9,613	6,646	16,259	6.8
1992	13,240	11,123	700	3,704	16,218	1	19,923	10,250	5,201	15,451	53.7
1993	13,438	12,783	606	4,662	16,134	6	20,802	10,418	6,862	17,280	58.0
1994 <sup>3</sup>	13,726	13,328	708	3,530	19,670	10	23,210	11,300	10,000	21,300	72.0

<sup>1</sup>Marketing year beginning August 1. <sup>2</sup>Upland cotton, weighted season average price received by farmers. <sup>3</sup>As of April 1995.

Table A-5.  
Cattle and calves: Inventory numbers, calf crop, disposition, production, and prices, 1960-94<sup>1</sup>

Year	Inventory Jan. 1 <sup>2</sup> (1,000 head)	Calf crop (1,000 head)	Inship- ments (1,000 head)	Marketings <sup>3</sup> (1,000 Head)		Slaughter <sup>4</sup> (1,000 Head) Cattle and Calves		Deaths (1,000 Head)		Production <sup>5</sup>	Marketings <sup>6</sup>	Price per 100 pounds (dollars)	
				Cattle	Calves	Cattle	Calves	Cattle	Calves			Cattle	Calves
1960	96,236	39,355	13,477	34,254	12,034	1,195	1,567	2,533	28,795,880	35,722,510	20.40	22.90	
1961	97,700	40,180	14,761	35,138	11,898	1,218	1,532	2,486	29,902,448	36,821,343	20.20	23.70	
1962	100,369	41,441	16,583	36,403	12,182	1,194	1,583	2,542	30,774,859	37,668,658	21.30	25.10	
1963	104,448	42,268	16,182	37,863	11,918	1,213	1,560	2,480	32,776,777	40,033,778	19.90	24.00	
1964	107,903	43,809	15,595	40,280	12,552	1,242	1,595	2,637	34,836,138	42,655,520	18.00	20.40	
1965	109,000	43,928	17,464	43,482	12,603	1,196	1,641	2,607	34,002,808	44,623,119	19.90	22.00	
1966	108,862	43,537	18,624	45,038	12,488	665	1,625	2,424	34,949,625	46,284,623	22.20	26.00	
1967	108,783	43,803	18,597	44,781	12,365	622	1,533	2,512	36,122,064	46,684,824	22.30	26.30	
1968	109,371	44,315	19,509	45,860	12,742	568	1,527	2,485	36,530,247	47,494,093	23.40	27.60	
1969	110,015	45,177	19,942	45,559	12,598	486	1,532	2,591	37,146,953	47,194,719	26.20	31.60	
1970	112,369	45,871	20,059	46,926	12,036	462	1,583	2,714	39,342,987	49,459,720	27.10	34.50	
1971	114,578	46,738	22,673	49,143	12,086	456	1,634	2,808	39,434,379	50,685,799	29.00	36.40	
1972	117,862	47,682	24,831	51,043	12,164	503	1,780	3,346	41,225,193	53,141,798	33.50	44.70	
1973	121,539	49,194	24,133	48,369	11,652	570	2,099	4,388	44,231,455	51,022,731	42.80	56.60	
1974	127,788	50,873	18,103	48,383	9,514	729	2,006	4,104	42,760,575	50,208,435	35.60	35.20	
1975	132,028	50,183	20,095	54,331	12,253	750	2,396	4,596	40,878,016	54,877,016	32.30	27.20	
1976	127,980	47,384	21,238	54,410	12,525	722	1,821	3,369	41,368,299	57,169,770	33.70	34.20	
1977	122,810	45,931	23,241	56,342	12,722	700	2,000	4,000	40,829,023	58,426,941	34.50	36.90	
1978	116,375	43,818	23,573	54,622	11,952	550	1,940	3,860	39,766,559	57,381,035	48.50	59.00	
1979	110,864	42,596	22,322	48,358	10,151	430	1,900	3,700	38,803,335	51,874,758	66.10	88.70	
1980	111,242	44,938	20,513	46,026	10,502	401	1,795	3,618	40,283,777	50,210,836	62.40	76.80	
1981	114,351	44,666	18,914	46,647	10,383	398	1,700	3,359	41,178,209	50,896,754	58.60	64.00	

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Table A-5 continued.  
 Cattle and calves: Inventory numbers, calf crop, disposition, production, and prices, 1960-94<sup>1</sup>

Year	Inventory Jan. 1 <sup>2</sup> (1,000 head)	Calf crop (1,000 head)	Inship-ments (1,000 head)	Marketings <sup>3</sup> (1,000 Head)		Slaughter <sup>3</sup> (1,000 Head)		Deaths (1,000 Head)		Production <sup>4</sup>	Marketings <sup>5</sup>		Price per 100 pounds (dollars)	
				Cattle	Calves	Cattle	Calves	Cattle	Calves		Cattle	Calves	Cattle	Calves
1982	115,444	44,200	21,289	49,549	10,560	395	1,843	3,586	40,714,722	53,272,291	56.70	59.80		
1983	115,001	43,885	19,210	48,089	10,443	410	1,877	3,617	40,301,302	51,990,001	55.50	61.70		
1984	113,360	42,470	20,515	50,862	10,253	388	1,873	3,591	40,030,471	54,644,756	57.30	59.90		
1985	109,582	41,050	19,864	49,243	10,530	370	1,701	3,345	40,157,633	54,483,633	53.70	62.10		
1986	105,378	41,182	21,211	49,963	10,498	351	1,738	3,300	40,464,719	55,398,117	52.60	61.10		
1987	102,118	40,152	22,222	49,232	10,423	330	1,700	3,100	40,327,023	54,449,464	61.10	78.50		
1988	99,622	39,318	22,413	49,308	10,451	281	1,609	2,964	40,617,645	53,761,675	66.60	89.20		
1989	96,740	38,817	21,679	46,642	10,176	241	1,505	2,856	40,240,800	52,765,220	69.50	90.80		
1990	95,816	38,613	23,278	46,766	9,978	244	1,529	2,798	40,386,144	53,315,858	74.60	95.60		
1991	96,393	38,583	22,533	45,921	9,545	242	1,540	2,707	41,089,597	53,988,403	72.70	98.00		
1992	97,556	38,933	22,492	45,632	9,565	242	1,677	2,689	40,913,865	53,131,604	71.30	89.00		
1993	99,176	39,448	22,920	46,022	9,679	226	1,703	2,927	40,875,341	53,030,343	72.60	91.20		
1994	100,988	40,729	22,237	46,607	9,587	227	1,584	2,684	42,721,254	54,178,593	66.70	87.20		

<sup>1</sup>Balance sheet estimates. Total of marketings, farm slaughter, deaths and onhand end of year equals total of births, inshipments, and onhand beginning of year. Includes Alaska and Hawaii beginning 1961. <sup>2</sup>All cattle and calves. <sup>3</sup>Data for 1966 not comparable with previous years due to change in definition to include custom slaughtering in plants for farmers as part of the commercial meat. <sup>4</sup>Adjustments made for inshipments and changes in inventory. <sup>5</sup>Excludes interfarm sales.

Table A-6.

Hogs: Inventory numbers, pig crop, disappearance, and prices, 1960-94<sup>1</sup>

Year	Inventory Dec. 1 <sup>2</sup> (1,000 head)	Pig crop (1,000 head)	Inshipments (1,000 head)	Marketings <sup>3</sup> (1,000 head)	Farm slaughter <sup>4</sup> (1,000 head)	Deaths (1,000 head)	Production <sup>5</sup> (1,000 lb)	Marketings (1,000 lb)	Price per 100 pounds (dollars)
1960	59,026	88,216	2,500	79,831	5,114	9,223	19,203,234	18,622,151	15.30
1961	55,560	92,713	2,293	80,326	4,639	8,984	20,166,822	18,917,418	16.60
1962	56,619	93,608	2,639	81,743	4,093	9,037	20,274,620	19,310,335	16.30
1963	57,993	94,056	2,657	86,163	3,795	7,991	20,960,460	20,273,936	14.90
1964	56,757	87,544	2,718	86,088	3,269	6,872	20,216,732	20,487,965	14.80
1965	56,106	78,941	2,364	78,127	2,678	6,089	18,252,141	18,426,743	19.60
1966	50,519	87,604	2,489	75,761	1,375	6,351	19,148,989	17,773,114	23.50
1967	57,125	91,668	2,855	85,258	1,301	6,273	20,636,444	19,948,881	19.10
1968	58,818	94,156	3,181	87,728	1,262	6,338	21,034,221	20,381,499	18.50
1969	60,829	88,676	3,092	88,074	1,134	6,343	20,600,325	20,708,223	22.20
1970	57,046	101,714	3,211	86,919	1,235	6,532	21,822,826	20,347,354	22.70
1971	67,285	97,924	3,639	98,644	1,210	6,584	22,832,335	23,147,614	17.50
1972	62,412	90,574	3,360	89,555	1,158	6,617	20,918,802	20,922,577	24.10
1973	59,017	88,123	3,902	82,419	1,095	6,914	20,154,425	19,606,900	38.40
1974	60,614	83,744	3,979	85,504	1,321	6,819	19,976,384	20,299,581	43.20
1975	54,693	71,186	3,806	73,959	1,193	5,631	16,798,843	16,980,920	46.10
1976	49,267	84,395	4,191	75,744	1,175	6,001	18,110,651	17,085,365	43.30
1977	54,934	86,162	4,258	80,917	1,145	6,754	19,124,424	18,409,468	39.40
1978	56,539	88,442	4,713	81,428	1,099	7,067	19,610,887	18,749,389	46.60
1979	60,356	102,792	5,003	92,499	1,070	7,265	22,617,129	21,485,876	41.80
1980	67,318	101,720	4,668	100,651	1,100	7,494	23,401,728	23,473,775	38.00
1981	64,462	93,853	4,147	95,986	895	6,883	21,812,966	22,258,979	43.90
1982	58,598	85,189	3,827	86,972	655	5,552	19,657,921	20,154,962	52.30
1983	54,534	93,155	3,527	89,129	517	4,875	21,195,347	20,834,899	46.80

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Table A-6 continued.

Hogs: Inventory numbers, pig crop, disappearance, and prices, 1960-94<sup>1</sup>

Year	Inventory	Pig crop (1,000 head)	Inshipments (1,000 head)	Marketings <sup>3</sup> (1,000 head)	Farm	Deaths (1,000 head)	Production <sup>5</sup> (1,000 lb)	Marketings (1,000 lb)	Price per 100 pounds (dollars)
	Dec. 1 <sup>2</sup> (1,000 head)				slaughter <sup>4</sup> (1,000 head)				
1984	56,694	86,586	3,527	87,344	473	4,917	20,195,699	20,490,921	47.10
1985	54,073	86,029	3,696	86,694	446	4,345	20,164,269	20,360,970	44.00
1986	52,313	82,283	3,463	86,608	358	4,133	19,362,696	19,362,696	49.30
1987	50,920	88,347	3,746	83,857	328	4,208	20,408,228	19,943,130	51.20
1988	54,384	92,883	3,722	90,420	335	4,767	21,669,577	21,626,216	42.30
1989	55,466	91,920	3,643	92,432	316	4,494	21,941,772	22,176,985	42.50
1990	53,788	90,100	4,317	89,240	279	4,269	22,808,605	22,553,539	53.70
1991	54,416	95,315	4,670	92,220	264	4,268	22,808,605	22,553,539	49.10
1992	57,649	99,142	4,871	98,589	272	4,600	24,278,519	24,285,468	41.60
1993	58,202	97,050	5,675	98,351	222	4,451	23,692,553	23,996,987	45.20
1994	57,904	101,400	6,172	100,709	208	4,568	24,458,776	24,513,580	39.90

<sup>1</sup>Balance sheet estimates. Total of marketings, farm slaughter, deaths, and onhand end of year equals totals of births, inshipments, and onhand beginning of year. Includes Alaska and Hawaii beginning 1981. <sup>2</sup>All hogs and pigs. Beginning with 1967 number onhand is estimate as of December 1 previous year. <sup>3</sup>Excludes interfarm sales. <sup>4</sup>Data for 1966 not comparable with previous years due to change in definition to include custom slaughtering in plants for farmers as part of the commercial meat production estimates beginning with January. <sup>5</sup>Adjustments made for inshipments and changes in inventory.

Table A-7.  
 Sheep and lambs: Inventory numbers, lamb crop, disposition, production, and prices, 1962-94<sup>1</sup>

Year	Inventory Jan. 1 <sup>2</sup> (1,000 head)	Lamb crop (1,000 head)		Inshipments (1,000 head)		Marketings <sup>3</sup> (1,000 head)		Farm slaughter <sup>4</sup> (1,000 head)		Deaths (1,000 head)		Production <sup>5</sup> (1,000 lb)	Marketings <sup>6</sup> (1,000 lb)	Price per 100 pounds (dollars)	
		Sheep	Lambs	Sheep	Lambs	Sheep	Lambs	Sheep	Lambs	Sheep	Lambs			Sheep	Lambs
1962	30,969	19,712	636	5,198	3,788	18,783	113	218	2,430	2,007	1,490,722	2,074,148	5.63	17.80	
1963	29,176	18,516	620	4,962	3,720	17,956	113	212	2,268	1,889	1,393,141	2,002,402	5.76	18.10	
1964	27,116	16,994	736	4,838	3,437	16,757	107	193	2,265	1,797	1,330,507	1,860,420	6.00	19.90	
1965	25,127	16,312	5,165	2,454	2,454	15,213	294	294	2,199	1,711	1,217,139	1,639,762	6.34	22.80	
1966	24,734	15,881	4,679	2,785	2,785	14,674	268	268	940	1,674	1,249,097	1,651,261	6.84	23.40	
1967	23,953	15,017	4,030	2,911	2,911	13,993	245	245	1,980	1,649	1,153,596	1,603,247	6.35	22.10	
1968	22,223	14,443	4,035	2,298	2,298	13,448	237	237	1,789	1,580	1,166,190	1,487,480	6.58	24.40	
1969	21,350	13,723	4,119	2,282	2,282	12,873	233	233	1,826	1,556	1,065,074	1,446,504	8.10	27.20	
1970	20,423	13,465	4,032	1,983	1,983	12,840	249	249	1,638	1,478	1,099,385	1,435,918	7.52	26.40	
1971	19,731	12,998	4,004	2,202	2,202	12,627	236	236	1,482	1,446	1,070,502	1,447,047	6.56	25.90	
1972	18,739	12,599	3,976	2,170	2,170	12,383	224	224	1,417	1,480	1,004,102	1,411,461	7.26	29.10	
1973	17,641	11,500	3,275	2,198	2,198	10,879	202	202	1,386	1,441	895,776	1,278,090	12.90	35.10	
1974	16,310	10,509	2,629	2,172	2,172	9,888	217	217	1,248	1,409	806,755	1,177,539	11.20	37.00	
1975	14,515	9,857	2,343	1,771	1,771	8,997	212	212	1,081	1,343	781,120	1,072,665	11.30	42.10	
1976	13,311	8,888	2,466	1,445	1,445	8,071	197	197	983	1,202	732,765	961,780	13.20	46.90	
1977	12,766	8,606	2,173	1,504	1,504	7,405	198	198	910	1,181	703,942	896,568	13.40	51.30	
1978 <sup>6</sup>	12,322	8,020	2,151	1,470	1,470	6,606	174	174	905	1,117	696,929	856,668	21.70	62.70	
1979	12,365	7,974	2,143	1,347	1,347	6,336	172	172	867	1,063	704,593	806,765	25.70	66.70	
1980	12,699	8,257	2,216	1,395	1,395	6,743	166	166	894	1,026	746,343	854,830	21.30	63.60	
1981	12,947	8,820	1,885	1,510	1,510	7,103	189	189	818	1,035	772,382	885,634	21.20	54.90	
1982	12,997	8,580	2,115	2,124	2,124	7,358	195	195	815	1,060	785,425	1,017,918	19.50	53.10	
1983	12,140	8,209	1,838	1,820	1,820	7,140	171	171	674	934	767,553	966,515	15.70	53.90	
1984	11,487	7,788	1,859	1,821	1,821	7,007	141	141	792	929	694,116	944,552	16.40	60.10	

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Table A-7 continued.  
 Sheep and lambs: Inventory numbers, lamb crop, disposition, production, and prices, 1962-94<sup>1</sup>

Year	Inventory Jan. 1 <sup>2</sup> (1,000 head)	Lamb crop (1,000 head)		Inshipments (1,000 head)		Marketings <sup>3</sup> (1,000 head)		Farm slaughter <sup>4</sup> (1,000 head)		Deaths (1,000 head)		Production <sup>5</sup> (1,000 lb)	Marketings <sup>6</sup> (1,000 lb)	Price per 100 pounds (dollars)	
		Sheep	Lambs	Sheep	Lambs	Sheep	Lambs	Sheep	Lambs	Sheep	Lambs			Sheep	Lambs
1985	10,443	7,412	1,693	1,569	6,478	135	544	839	694,217	868,942	23.90	67.70			
1986	9,983	7,356	1,792	1,310	6,084	128	496	777	721,464	809,588	25.60	69.00			
1987	10,389	7,190	1,814	1,232	6,024	113	503	736	728,863	799,111	29.50	77.60			
1988	10,945	7,205	1,971	1,610	6,350	100	511	699	707,148	625,734	25.60	69.10			
1989	10,853	7,721	2,452	1,129	7,201	98	509	731	775,620	827,968	24.40	66.10			
1990	11,358	7,686	2,004	1,628	6,823	95	519	809	757,236	879,829	23.20	55.50			
1991	11,174	7,651	2,186	1,719	7,187	92	476	741	762,815	926,780	19.70	52.20			
1992	10,797	7,225	2,389	1,923	7,007	89	434	759	711,339	905,541	25.80	59.50			
1993	10,201	6,379	2,379	1,952	6,752	74	391	688	688,594	986,454	28.60	64.40			
1994	9,742	5,902	2,158	1,529	6,358	76	337	610	625,896	882,919	30.90	65.60			

<sup>1</sup>Balance sheet estimates. Total of marketings, farm slaughter, deaths, and onhand end of year equals total of births, inshipments, and onhand beginning of year. Includes Alaska beginning 1961; Hawaii not available. <sup>2</sup>All sheep and lambs. <sup>3</sup>Excludes interfarm sales. <sup>4</sup>Data for 1966 not comparable with previous years due to change in definition to include custom slaughtering in plants for farmers as part of the commercial estimates beginning with January 1966. <sup>5</sup>Adjustments made for inshipments and changes in inventory. <sup>6</sup>Excludes inventory and supply and disposition items for AL, AR, DE, FL, GA, MS, RI, and SC, and is comparable to other supply and disposition items for 1978. Actual Jan 1, 1978, inventory is 12,369,000 head.

Table A-8.

Milk: Supply, utilization, and prices, 1960-94<sup>1</sup>

Year	Supply (mil lb)					Utilization (mil lb)			Prices received by farmers for all milk (dol. per cwt)		
	Average number of milk cows <sup>2</sup> (1,000 head)	Milk production per cow <sup>3</sup> (lb)	Beginning stocks	Production	Imports	Total	Domestic disappearance	Export and shipments <sup>4</sup>	Total	Milk feed ratios <sup>5</sup>	
											Export and shipments <sup>4</sup>
1960	17,515	7,029	4,167	123,109	604	127,880	121,451	1,029	122,480	4.21	1.45
1961	17,243	7,290	5,400	125,707	760	131,867	121,032	932	121,964	4.22	1.45
1962	16,842	7,496	9,903	126,251	795	136,949	123,075	1,718	124,793	4.09	1.40
1963	16,260	7,700	12,156	125,202	915	138,273	123,092	5,493	128,585	4.10	1.36
1964	15,677	8,099	9,688	126,967	830	137,485	124,741	7,454	132,195	4.15	1.38
1965	14,953	8,305	5,290	124,180	923	130,393	123,579	2,358	125,937	4.23	1.40
1966	14,071	8,522	4,456	119,912	2,791	127,159	121,092	1,208	122,300	4.81	1.53
1967	13,415	8,851	4,859	118,732	2,908	126,499	117,423	824	118,247	5.02	1.56
1968	12,832	9,135	8,252	117,225	1,780	127,257	118,852	1,771	120,623	5.24	1.70
1969	12,307	9,434	6,634	116,108	1,621	124,363	117,699	1,419	119,118	5.49	1.74
1970	12,000	9,751	5,192	117,007	1,874	124,073	117,303	964	118,267	5.71	1.74
1971	11,839	10,015	5,776	118,566	1,346	125,688	117,495	3,120	120,615	5.87	1.71
1972	11,700	10,259	5,073	120,025	1,694	126,792	119,085	2,205	121,290	6.07	1.72
1973	11,413	10,119	5,502	115,491	3,860	124,853	119,150	1,302	120,452	7.14	1.46
1974	11,230	10,293	4,401	115,586	2,923	122,910	115,967	1,155	117,122	8.33	1.34
1975	11,139	10,360	5,788	115,398	1,669	122,855	118,004	1,048	119,052	8.75	1.40
1976	11,032	10,894	3,803	120,180	1,943	125,926	119,245	1,030	120,275	9.66	1.53
1977	10,945	11,206	5,651	122,654	1,968	130,273	120,517	995	121,512	9.72	1.57
1978	10,803	11,243	8,761	121,461	2,310	132,532	122,643	982	123,625	10.60	1.74
1979	10,743	11,488	8,907	123,350	2,305	134,562	124,818	1,021	125,839	12.02	1.80
1980	10,810	11,889	8,723	128,406	2,109	139,238	125,119	993	126,112	13.05	1.76
1981	10,923	12,177	13,126	132,770	2,329	148,225	125,744	3,929	129,673	13.77	1.72

—continued

Table A-8 continued.

Milk: Supply, utilization, and prices, 1960-94<sup>1</sup>

Year	Supply (mil lb)				Utilization (mil lb)			Prices received by farmers for all milk (dol. per cwt)	Milk feed ratios <sup>5</sup>		
	Average number of milk cows <sup>2</sup> (1,000 head)	Milk production per cow <sup>3</sup> (lb)	Beginning stocks	Production	Imports	Total	Domestic disappearance			Exports and shipments <sup>4</sup>	Total
1982	11,011	12,306	18,552	135,505	2,477	156,534	130,294	5,944	136,238	13.61	1.83
1983	11,098	12,585	20,296	139,588	2,617	162,501	135,760	3,890	139,650	13.58	1.72
1984	10,833	12,503	22,851	135,351	2,741	160,943	139,674	4,485	144,159	13.46	1.65
1985	11,016	12,994	16,784	143,012	2,776	162,572	143,338	5,522	148,860	12.75	1.73
1986	10,813	13,260	13,682	143,124	2,732	159,538	144,069	2,547	146,616	12.50	1.79
1987	10,327	13,819	12,922	142,709	2,490	158,121	147,600	3,048	150,648	12.54	1.84
1988	10,224	14,185	7,473	145,152	2,394	155,019	144,444	2,197	146,641	12.26	1.58
1989	10,046	14,323	8,378	144,239	2,498	155,115	141,305	4,774	146,079	13.56	1.65
1990	9,993	14,782	9,036	148,313	2,690	160,039	143,899	2,781	146,680	13.74	1.71
1991	9,826	14,031	13,359	148,477	2,625	164,461	144,318	4,303	148,621	12.27	1.58
1992	9,688	15,574	15,840	151,647	2,521	170,008	145,684	9,110	155,794	13.15	1.69
1993	9,589	15,704	14,214	150,954	2,806	167,974	149,183	9,221	158,404	12.86	1.64
1994	9,525	16,128	9,570	153,622	2,979	166,171	-----	-----	-----	13.04	1.62

<sup>1</sup>Supply-utilization data, milk equivalent fat solids bases. <sup>2</sup>Average number on farms during the year; heifers that have not freshened excluded. <sup>3</sup>Excludes milk sucked by calves.

<sup>4</sup>Includes sales for dollars, government-to-government sales P.L. 480, and AID programs. Exports only beginning 1988. <sup>5</sup>Pounds of average concentrate ration equal in value to 1 pound of milk.

## ■ Glossary of Agricultural Terms

**Acid soil.** Soil with a pH of less than 7.0.

**Acreage reduction program (ARP).** A voluntary land retirement program conducted by the Commodity Credit Corporation (CCC) in which participating farmers idle a prescribed portion of their crop acreage base of wheat, feed grains, cotton, or rice. The base is the average of the acreage planted for harvest and considered to be planted for harvest for the previous 5 years. Acreage considered to be planted includes any acreage not planted because of acreage reduction and diversion programs during a period specified by law. Farmers are not given a direct payment for ARP participation, although they must participate to be eligible for benefits such as CCC loans and deficiency payments. Participating producers are sometimes offered the option of idling additional land under a paid diversion program, which gives them a specific payment for each idled acre.

**Advance deficiency payments.** A portion of eligible deficiency payments made to crop producers when they sign up for Federal commodity programs. The Secretary is required to make advance payments when an ARP is in effect and deficiency payments are expected to be paid. Advance deficiency payments can range from 30 to 50 percent of expected payments, depending on the crop. Up to 50 percent of the advance payment may be made as commodity certificates. If total deficiency payments are less than the advance amount, producers must refund the excess portion.

**Agricultural Adjustment Act of 1933 (P.L. 73-10)** Signed May 12, 1933, this law introduced the price support programs, including production adjustments, and the incorporation of the Commodity Credit Corporation (CCC), under the laws of the State of Delaware on October 17, 1933. The program benefits were financed mostly by processing taxes on the specific commodity. The act also made price support loans by the CCC mandatory for the designated “basic” (storable) commodities: corn, wheat, and cotton.

Support for other commodities was authorized upon the recommendation by the Secretary of Agriculture with the President’s approval. Commodity loan programs carried out by the CCC from 1933 to 1937 included programs for cotton, corn, turpentine, rosin, tobacco, peanuts, dates, figs, and prunes. The production control and processing taxes were later declared unconstitutional by the Supreme Court in 1936.

**Agricultural Adjustment Act of 1938 (P.L. 75-430).** Signed February 16, 1938, this law was the first to make price support mandatory for corn, cotton, and wheat to help maintain a sufficient supply for low production times along with marketing quotas to keep supply in line with market demand. It also established permissive supports for butter, dates, figs, hops, turpentine, rosin, pecans, prunes, raisins, barley, rye, grain sorghum, wool, winter cover-crop seeds, mohair, peanuts, and tobacco for the 1938-40 period. This act established the Federal Crop Insurance Corporation as a Government corporation. The 1938 Act is considered part of permanent agriculture legislation. Provisions of this law are often superseded by more current legislation. However, if the current legislation expires and new legislation is not enacted, the law reverts back to the permanent provisions of the 1938 Act, along with the Agricultural Act of 1949.

**Agronomy.** The science of crop production and soil management.

**Alfalfa.** A valuable leguminous crop for forage or hay used in livestock feeding.

**Alkaline soil.** Soil with a pH of more than 7.0.

**Alternative farming.** Production methods other than energy- and chemical-intensive one-crop (monoculture) farming. Alternatives include using animal and green manure rather than chemical fertilizers, integrated pest management instead of chemical pesticides, reduced tillage, crop rotation (especially with legumes to add nitrogen), alternative crops, or diversification of the farm enterprise.

**Animal unit.** A standard measure based on feed requirements, used to combine various classes of livestock according to size, weight, age, and use.

**Aquaculture.** The production of aquatic plants or animals in a controlled environment, such as ponds, raceways, tanks, or cages, for all or part of their life cycle. In the United States, baitfish, catfish, clams, crawfish, freshwater prawns, mussels, oysters, salmon, shrimp, tropical (or ornamental) fish, and trout account for most of the aquacultural production. Less widely established but growing species include alligator, hybrid striped bass, carp, eel, red fish, northern pike, sturgeon, and tilapia.

**Arid climate.** A dry climate with an annual precipitation usually less than 10 inches. Not suitable for crop production without irrigation.

**Artificial insemination (AI).** The mechanical injection of semen into the womb of the female animal with a syringe-like apparatus.

**Back hoe.** A shovel mounted on the rear of a tractor, hydraulically operated to dig trenches or pits in soil.

**Basic commodities.** Six crops (corn, cotton, peanuts, rice, tobacco, and wheat) that are covered by legislated price support programs.

**Biological control of pests.** Control, but not total eradication, of insect pests achieved by using natural enemies, either indigenous or imported, or diseases to which the pest is susceptible. It includes such nontoxic pesticides as *Bacillus thuringiensis* (*Bt*).

**Biologics.** Immunization materials made from living or "killed" organisms and their products used for the detection and prevention of diseases; includes serums, vaccines, bacterins, antigens, and antitoxins.

**Biotechnology.** The use of technology, based on living systems, to develop processes and products for commercial, scientific, or other purposes. These include specific techniques of plant regeneration and gene manipulation and transfer (see also *genetic engineering*).

**Blended credit.** A form of export subsidy which combines direct government export credit and credit guarantees to reduce the effective interest rate.

**Brucellosis** A contagious disease in beef and dairy cattle, which causes abortion. Same disease in humans is known as undulant fever.

**BST (bovine somatotropin)** (also called BGH, for bovine growth hormone). A protein hormone produced naturally in the pituitary gland of cattle. Recombinant BST, or rBST, is BST produced using recombinant DNA biotechnology. BST controls the amount of milk produced by cows.

**Cargo preference.** A law that requires a certain portion of goods or commodities financed by the U.S. Government to be shipped on U.S. flag ships. The law has traditionally applied to P.L. 480 and other concessional financing or donations programs.

**Carryover.** Existing supplies of a farm commodity not used at the end of a marketing year, and remaining to be carried over into the next year. Marketing years generally start at the beginning of a new harvest for a commodity, and extend to the same time in the following year.

**Cash grain farm.** A farm on which corn, grain sorghum, small grains, soybeans, or field beans and peas account for at least 50 percent of value of products sold.

**Census of Agriculture.** A count taken by the U.S. Bureau of the Census every 5 years (including 1987 and 1992) of the number of farms, land in farms, crop acreage and production, livestock numbers and production, farm spending, farm facilities and equipment, farm tenure, value of farm products sold, farm size, type of farm, etc. Data are obtained for States and counties.

**Checkoff programs.** Research and promotion programs authorized by law and financed by assessments. The programs are paid for by specified industry members such as producers, importers, and handlers.

**Combine.** A self-propelled machine for harvesting grain and other seed crops. In one operation, it cuts, threshes, separates, and cleans the grain and scatters the straw.

**Commodity certificates.** Payments issued by the Commodity Credit Corporation (CCC) in lieu of cash payments to program participants. Holders of the certificates may exchange them with the CCC for CCC-owned commodities.

**Commodity Credit Corporation (CCC).** A federally owned and operated corporation within USDA. The CCC was created to stabilize, support, and protect farm income and prices through loans, purchases, payments, and other operations. The CCC functions as the financial institution through which all money transactions are handled for agricultural price and income support and related programs. The CCC also helps maintain balanced, adequate supplies of agricultural commodities and helps in their orderly distribution. The CCC does not have any operating personnel or facilities.

**Complementary imports.** Agricultural import items not produced in appreciable commercial volume in the United States, such as bananas, coffee, rubber, cocoa, tea, spices, and cordage fiber (see also *supplementary imports*).

**Compost.** Organic residues, or a mixture of organic residues and soil, which have been piled, moistened, and allowed to undergo biological decomposition for use as a fertilizer.

**Concessional sales.** Credit sales of a commodity in which the buyer is allowed more favorable payment terms than those on the open market. For example, Title I of the Food for Peace Program (P.L. 480) provides for financing sales of U.S. commodities with low-interest, long-term credit.

**Conservation district.** Any unit of local government formed to carry out a local soil and water conservation program.

**Conservation plan.** A combination of land uses and practices to protect and improve soil productivity and to prevent soil deterioration. A conservation plan must be approved by the local conservation district for acreage offered in the Conservation Reserve Program. The plan sets forth the conservation measures and maintenance that the owner or operator will carry out during the term of the contract.

**Conservation practices.** Methods which reduce soil erosion and retain soil moisture. Major conservation practices include conservation tillage, crop rotation, contour farming, stripcropping, terraces, diversions, and grassed waterways.

**Conservation Reserve Program (CRP).** A program authorized by the Food Security Act of 1985, designed to reduce erosion on 40-45

million acres of U.S. farmland. Under the program, producers who sign contracts agree to convert highly erodible cropland to approved conservation uses for 10 years. In exchange, participating producers receive annual rental payments and cash or payments-in-kind to share up to 50 percent of the cost of establishing permanent vegetative cover.

**Conservation tillage.** Any of several farming methods that provide for seed germination, plant growth, and weed control yet maintain effective ground cover throughout the years and disturb the soil as little as possible. The aim is to reduce soil loss and energy use while maintaining crop yields and quality. No-till is the most restrictive (soil-conserving) form of conservation tillage. Other practices include ridge-till, strip-till, and mulch-till.

**Contour farming.** Field operations such as plowing, planting, cultivating, and harvesting on the contour, or at right angles to the natural slope, to reduce soil erosion, protect soil fertility, and use water more efficiently.

**Cooperative.** An organization formed for the purpose of producing and marketing goods or products owned collectively by members who share in the benefits.

**Cooperative Extension System.** A system of State, local, and Federal organizations working together to provide practical educational services outside the classroom on agriculture, household management, and other topics. States participate mostly through their Land-Grant Universities, while the Federal partner is USDA's Extension Service.

**Cost of production.** The sum, measured in dollars, of all purchased inputs and other expenses necessary to produce farm products. Cost of production statistics may be expressed as an average per animal, per acre, or per unit of production (bushel, pound, or hundredweight) for all farms in an area or in the country.

**County extension agent.** A worker who is jointly employed by the county, State Cooperative Extension Service, and the U.S. Department of Agriculture's Extension Service, to bring agricultural and homemaking information to local people and to help them resolve farm, home, and community

problems. Also called extension agent, farm and home advisor, agricultural agent, extension home economist, and 4-H or youth agent.

**Cover crop.** A close-growing crop grown to protect and improve soils between periods of regular crops or between trees and vines in orchards and vineyards.

**Crop rotation.** The practice of growing different crops in recurring succession on the same land. Crop rotation plans are usually followed for the purpose of increasing soil fertility and maintaining good yields.

**Crop year.** The year in which a crop is harvested. For wheat, barley, and oats, the crop year is from June 1 to May 31. For corn, sorghum, and soybeans, it is from September 1 to August 31. For cotton, peanuts, and rice, the crop year is from August 1 to July 31.

**Custom work.** Specific farm operations performed under contract between the farmer and the contractor. The contractor furnishes labor, equipment, and materials to perform the operation. Custom harvesting of grain, spraying and picking of fruit, and sheep shearing are examples of custom work.

**Deficiency payment.** A payment made by the Commodity Credit Corporation to farmers who participate in wheat, feed grain, rice, or cotton programs. The payment rate is per bushel, pound, or hundredweight. It is based on the difference between the price level established by law (target price) and the higher of (1) the price support (loan) rate, and (2) the market price during a period specified by law.

**Developing countries.** Countries whose economies are mostly dependent on agriculture and primary resources and that do not have a strong industrial base. These countries generally have a gross national product below \$1,890 per capita (as defined by the World Bank in 1986). The term is often used synonymously with less-developed and underdeveloped countries.

**Disaster payments.** Federal payments made to farmers because of a natural disaster when (1) planting is prevented or (2) crop yields are abnormally low because of adverse weather and related conditions. Disaster payments may be provided under existing legislation or

under special legislation enacted after an extensive natural disaster.

**Distance Education.** Delivery of instructional material over a wide geographical area via one or more technologies, including video, computer, and laser.

**DNA.** Deoxyribonucleic acid, a polymeric chromosomal constituent of living cell nuclei, composed of deoxyribose (a sugar), phosphoric acid, and four nitrogen bases—adenine, cytosine, guanine, and thymine. It contains the genetic information for living organisms, and consists of two strands in the shape of a double helix. A gene is a piece of DNA.

**Double crop.** Two different crops grown on the same area in one growing season.

**Dryland farming.** A system of producing crops in semiarid regions (usually with less than 20 inches of annual rainfall) without the use of irrigation. Frequently, part of the land will lie fallow in alternate years to conserve moisture.

**Erosion.** The process in which water or wind moves soil from one location to another. Types of erosion are (1) **sheet and rill**—a general washing away of a thin uniform sheet of soil, or removal of soil in many small channels or incisions caused by rainfall or irrigation runoff; (2) **gully**—channels or incisions cut by concentrated water runoff after heavy rains; (3) **ephemeral**—a water-worn, short-lived or seasonal incision, wider, deeper and longer than a rill, but shallower and smaller than a gully; and (4) **wind**—the carrying away of dust and sediment by wind in areas of high prevailing winds or low annual rainfall.

**Ethanol.** An alcohol fuel that may be produced from an agricultural foodstock such as corn, sugarcane, or wood, and may be blended with gasoline to enhance octane, reduce automotive exhaust pollution, and reduce reliance on petroleum-based fuels.

**Extra-long staple (ELS) cotton.** Cottons having a staple length of 1-3/8 inches or more, according to the classification used by the International Cotton Advisory Committee. This cotton is also characterized by fineness and high-fiber strength, contributing to finer and stronger yarns needed for thread and higher valued fabrics. American

types include American Pima and Sea Island cotton.

**Family Farm.** An agricultural business which (1) produces agricultural commodities for sale in such quantities so as to be recognized as a farm rather than a rural residence; (2) produces enough income (including off-farm employment) to pay family and farm operating expenses, to pay debts, and to maintain the property; (3) is managed by the operator; (4) has a substantial amount of labor provided by the operator and family; and (5) may use seasonal labor during peak periods and a reasonable amount of full-time hired labor.

**Farm.** A tract or tracts of land, with improvements, available to produce crops or livestock, including fish. The Bureau of the Census defined a farm in 1978 as any place that has \$1,000 or more in gross sales of farm products per year.

**Farm Credit System.** The system made up of cooperatively owned financial institutions in districts covering the United States and Puerto Rico that finance farm and farm-related mortgages and operating loans. Institutions within each district specialize in farmland loans and operating credit, or lending to farmer-owned supply, marketing, and processing cooperatives. FCS institutions rely on the bond market as a source of funds.

**Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)** (P.L. 80-104). Signed June 25, 1947, this law required the registration of pesticide products to ensure that they meet stated health, safety, and environment criteria. Amendments to the law required previously registered pesticides to be reregistered by 1997 to meet updated standards. The Environmental Protection Agency, which administers FIFRA, can cancel registration of pesticides not meeting the required criteria, require label changes, or order immediate termination of use.

**Federal land bank associations.** Local farmer-owned organizations through which farmers obtain long-term (up to 40 years) loans on land. The associations are an integral part of the Farm Credit System.

**Federal marketing orders and agreements.** USDA is authorized to issue marketing orders and agreements for a variety of agricultural

commodities and their products. Marketing orders have been established for milk, fruits and vegetables, and other commodities. The orders may regulate the handling of fruits and vegetables in a variety of ways including limiting quantities that may be marketed, or establishing grade, size, maturity, or quality requirements.

**Feed grain.** Any of several grains most commonly used for livestock or poultry feed, including corn, grain sorghum, oats, rye, and barley.

**Fertilizer.** Any organic or inorganic material of natural or synthetic origin which is added to soil to provide nutrients, including nitrogen, phosphorus, and potassium, necessary to sustain plant growth.

**FFA.** An organization for high school students studying vocational agriculture.

**Flood plains.** Lowland and relatively flat areas adjoining inland and coastal waters, including floodprone areas of islands. This land includes, at a minimum, those areas that are subject to a 1 percent or greater chance of flooding in any given year.

**The Food, Agriculture, Conservation, and Trade Act of 1990** (P.L. 101-624). Signed November 28, 1990, the 5-year farm bill continues to move agriculture in a market-oriented direction. It freezes minimum target prices and allows more planting flexibility. New titles include rural development, forestry, fruit and vegetable, grain quality, organic certification, global climate change, and commodity promotion programs.

**Food grain.** Cereal seeds most commonly used for human food, chiefly wheat and rice.

**Forage.** Vegetable matter, fresh or preserved, that is gathered and fed to animals as roughage; includes alfalfa hay, corn silage, and other hay crops.

**Forward contracting.** A method of selling crops before harvest by which the buyer agrees to pay a specified price to a grower for a portion, or all, of the grower's crops.

**Fungicide.** A chemical substance used as a spray, dust, or disinfectant to kill fungi infesting plants or seeds.

**Futures contract.** An agreement between two people, one who sells and agrees to deliver and one who buys and agrees to

receive a certain kind, quality, and quantity of product to be delivered during a specified delivery month at a specified price.

**Genetic engineering.** Genetic modification of organisms by recombinant DNA, recombinant RNA, or other specific molecular gene transfer or exchange techniques.

**Genome.** All the genetic material in the chromosomes of a particular organism.

**Gleaning.** Collecting of unharvested crops from the fields, or obtaining agricultural products from farmers, processors, or retailers without charge.

**Gopher.** The Internet Gopher client/server is a distributed information delivery system around which a campuswide information system can readily be constructed. While providing a delivery vehicle for local information, Gopher facilitates access to other Gopher and information servers throughout the world.

**Grade A milk.** Milk, also referred to as fluid grade, produced under sanitary conditions that qualify it for fluid (beverage) consumption. Only Grade A milk is regulated under Federal milk marketing orders.

**Grade B milk.** Milk, also referred to as manufacturing grade, not meeting Grade A standards. Less stringent standards generally apply.

**Grafting.** The process of inserting a scion of a specified variety into a stem, root, or branch of another plant so that a permanent union is achieved.

**Great Plains.** A level to gently sloping region of the United States that lies between the Rockies and approximately the 98th meridian. The area is subject to recurring droughts and high winds. It consists of parts of North Dakota, South Dakota, Montana, Nebraska, Wyoming, Kansas, Colorado, Oklahoma, Texas, and New Mexico.

**Green manure.** Any crop or plant grown and plowed under to improve the soil, by adding organic matter and subsequently releasing plant nutrients, especially nitrogen.

**Ground water.** Water beneath the Earth's surface between saturated soil and rock, which supplies wells and springs.

**Hedgerow.** Trees or shrubs grown closely together so that branches intertwine to form a continuous row.

**Herbicide.** Any agent or chemical used to destroy plants, especially weeds.

**Humus.** The well decomposed, relatively stable portion of the partly or wholly decayed organic matter in a soil, which provides nutrients and helps the soil retain moisture.

**Hydroponics.** Growing of plants in water containing dissolved nutrients, rather than in soil. This process is being used in greenhouses for intensive off-season production of vegetables.

**Infrastructure.** The transportation network, communications systems, financial institutions, and other public and private services necessary for economic activity.

**Integrated crop management.** An agriculture management system that integrates all controllable agricultural production factors for long-term sustained productivity, profitability, and ecological soundness.

**Integrated pest management (IPM).** The control of pests or diseases by using an array of crop production strategies, combined with careful monitoring of insect pests or weed populations and other methods. Some approaches include selection of resistant varieties, timing of cultivation, biological control methods, and minimal use of chemical pesticides so that natural enemies of pests are not destroyed. These approaches are used to anticipate and prevent pests and diseases from reaching economically damaging levels.

**International trade barriers.** Regulations used by governments to restrict imports from other countries. Examples include tariffs, embargoes, import quotas, and unnecessary sanitary restrictions.

**Internet.** The global connection of interconnected local, mid-level, and wide-area automated information/communications networks.

**Land-Grant universities.** Institutions, including State colleges and universities and Tuskegee University, eligible to receive funds under the Morrill Acts of 1862 and 1890. The Federal Government granted land to each State and territory to encourage practical education in agriculture, homemaking, and mechanical arts.

**Land-use planning.** Decisionmaking process to determine present and future uses of land. The resulting plan is the key element of a comprehensive plan describing recommended location and intensity of development of public and private land uses such as residential, commercial, industrial, recreation and agricultural.

**Leaching.** The process of removal of soluble materials by the passage of water through soil.

**Legumes.** A family of plants that includes many valuable food and forage species such as peas, beans, soybeans, peanuts, clovers, alfalfas, and sweet clovers. Legumes can convert nitrogen from the air to nitrates in the soil through a process known as nitrogen fixation. Many of these species are used as cover crops and are plowed under for soil improvement.

**Lint.** Cotton fiber remaining after the seeds have been ginned out.

**Loan deficiency payments.** Commodity Credit Corporation payments provided to producers who, although eligible to obtain a marketing loan for a wheat, feed grains, upland cotton, rice, or oilseed crop, agree to forgo obtaining the loan. The payment is determined by multiplying the loan payment rate by the amount of commodity eligible for loan. The payment rate per unit is the announced loan level minus the repayment level used in the marketing loan.

**Loan rate** (also called price support rate). The price per unit (bushel, bale, pound, or hundredweight) at which the Commodity Credit Corporation will provide loans to farmers enabling them to hold their crops for later sale.

**Low-Input Sustainable Agriculture (LISA).** Alternative methods of farming that reduce the application of purchased inputs such as fertilizer, pesticides, and herbicides. The goals of these alternative practices are to diminish environmental hazards while maintaining or increasing farm profits and productivity. Methods include crop rotations and mechanical cultivations to control weeds; integrated pest management strategies such as introducing harmless natural enemies; planting legumes that transform nitrogen from the air into a form plants can use; application of

livestock manures, municipal sludge, and compost for fertilizer; and overseeding of legumes into maturing fields of grain crops, or as post-season cover crops to curtail soil erosion.

**Market basket of farm foods.** Average quantities of U.S. farm foods purchased annually per household in a given period. Retail cost of these foods used as a basis for computing an index of retail prices for domestically produced farm foods. Excluded are fishery products, imported foods, and meals eaten away from home.

**Marketing spread.** The difference between the retail price of a product and the farm value of the ingredients in the product. This farm-retail spread includes charges for assembling, storing, processing, transporting, and distributing the products.

**Marketing year.** Year beginning at harvest time during which a crop moves to market.

**Metropolitan statistical area (MSA).** A county or group of contiguous counties that contain at least one city of 50,000 inhabitants or more, or twin cities with a combined population of at least 50,000. In addition, contiguous counties are included in an MSA if they are socially and economically integrated with a central city.

**Migrant farmworker.** A person who travels across State or county boundaries to do agricultural work of a seasonal or other temporary nature, and who is required to be absent overnight from his or her permanent place of residence. Exceptions are immediate family members of an agricultural employer or a farm labor contractor, and temporary foreign workers.

**National forest.** A Federal reservation dedicated to protection and management of natural resources for a variety of benefits—including water, forage, wildlife habitat, wood, recreation, and minerals. National forests are administered by USDA's Forest Service, while national parks are administered by the Interior Department's National Park Service.

**National grassland.** Land, mainly grass and shrub cover, administered by the Forest Service as part of the National Forest System for promotion of grassland agriculture, watersheds, grazing wildlife, and recreation.

**Nematode.** Microscopic soil worm, which may attack root or other structures of plants and cause extensive damage.

**Net farm income.** A measurement of the profit or loss associated with a given year's production. It is an approximation of the net value of agricultural production, regardless of whether the commodities were sold, fed, or placed in inventory during the year. Net farm income equals the difference between gross farm income and total expenses. It includes nonmoney items such as depreciation, the consumption of farm-grown food, and the net imputed rental value of operator dwellings. Additions to inventory are treated as income.

**Network.** A group of machines connected together so they can transmit information to one another. There are two kinds of networks: local networks and remote networks.

**Nitrogen.** A chemical element essential to life and one of the primary plant nutrients. Animals get nitrogen from protein feeds; plants get it from soil; and some bacteria get it directly from air.

**Nonfarm income.** Includes all income from nonfarm sources (excluding money earned from working for other farmers) received by farm operator households.

**Nonpoint source pollution.** Pollutants that cannot be traced to a specific source, including stormwater runoff from urban and agricultural areas.

**Nonprogram crops.** Crops—such as potatoes, vegetables, fruits, and hay—that are not included in Federal price support programs.

**Nonrecourse loans.** The major price support instrument used by the Commodity Credit Corporation to support the price of wheat, feed grains, cotton, rice, honey, sugar, peanuts, and tobacco. Farmers who agree to comply with all commodity program provisions may pledge a quantity of a commodity as collateral and obtain a loan from the CCC. The borrower may elect either to repay the loan with interest within a specified period and regain control of the collateral commodity, or to forfeit it to the CCC. In case of a forfeiture, the borrower forfeits without penalty the collateral to the CCC and the CCC accepts it as satisfaction of the loan. This includes the accumulated interest,

regardless of the price of the commodity in the market at the time of forfeiture.

**Normal flex acreage.** This provision of the Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508) requires a mandatory 15-percent reduction in payment acreage. Under this provision, producers are ineligible to receive deficiency payments on 15 percent of their crop acreage base (not including any acreage removed from production under any production adjustment program). Producers, however, are allowed to plant any crop on this acreage, except fruits and vegetables.

**Nutrient.** A chemical element or compound that is essential for the metabolism and growth of an organism.

**Off-farm income.** Includes wages and salaries from working for other farmers, plus non-farm income, for all owner operator families (whether they live on a farm or not).

**Oilseed crops.** Primarily soybeans, and other crops such as peanuts, cottonseed, sunflower seed, flaxseed, safflower seed, rapeseed, sesame seed, castor beans, canola, rapeseed, and mustard seeds used to produce edible and/or inedible oils, as well as high-protein animal meal.

**Oilseed meal.** The product obtained by grinding the cakes, chips, or flakes that remain after most of the oil is removed from oilseeds. Used as a feedstuff for livestock and poultry.

**Optional flex acreage.** Under the planting flexibility provision of the 1990 Farm Act, producers can choose to plant up to 25 percent of the crop acreage base to other Commodity Credit Corporation-specified crops (except fruits and vegetables) without a reduction in crop acreage bases on the farm, but receiving no deficiency payments on this acreage. The Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508) made a 15-percent reduction in payment acreage mandatory. The remaining 10 percent is the optional flex acreage.

**Organic farming.** There is no universally accepted definition, but in general organic farming is a production system which avoids or largely excludes the use of synthetically compounded fertilizers, pesticides, growth regulators, and livestock feed additives. To the maximum extent feasible, organic farming systems rely on crop rotation, crop residues, animal manures, legumes, green

manure, off-farm organic wastes, mechanical cultivation, mineral bearing rocks, and aspects of biological pest control to maintain soil productivity and till, to supply plant nutrients and to control weeds, insects, and other pests.

**Parity.** Equality in the present purchasing power of a unit (bushel, cwt) of a product compared with its purchasing power during the period 1910-14. Parity price for any commodity equals its 10-year average price multiplied by the ratio of the current Parity Index compared to the 10-year average of Prices Received Index. The Parity Index reflects prices paid by farmers for items of production and family living, including interest, taxes, and wage rates. Both Parity Index and Prices Received Index are expressed on a base of 1910-14 equaling 100. The near threefold gains in farm productivity are not reflected in parity prices.

**Parity Ratio.** A measure of relative purchasing power of farm products. The ratio between index of prices received by farmers for all farm products and index of prices paid by farmers for commodities and services used in farm production and family living. The parity ratio measures price relationships (prices received and prices paid). It does not measure farm income or farmers' total purchasing power. It does not reflect farmers' off-farm income, Government payments, or farmers' assets.

**Payment limitations.** Limitations set by law on the amount of money any one person may receive in Federal farm program payments each year under the feed grain, wheat, cotton, rice, and other farm programs.

**Percolation.** The downward movement of water through soil under the influence of gravity.

**Plant germplasm.** Living material such as seeds, rootstock, or leaf plant tissue from which new plants can grow.

**Pomology.** The science or study of growing fruit.

**Price index.** An indicator of average price change for a group of commodities that compares price for those same commodities in some other period, commonly called the base period.

**Price support level.** The price for a unit of a farm commodity (bushel, pound) that the Government will support through price-support loans, purchases, and/or payments. Price support levels are determined by law and are set by the Secretary of Agriculture.

**Price support programs.** Government programs that aim to keep farm prices received by participating producers from falling below specific minimum levels. Price support programs for major commodities are carried out by providing loans and purchase agreements to farmers so that they can store their crops during periods of low prices. The loans can later be redeemed if commodity prices rise sufficiently to make the sale of the commodity on the market profitable, or the farmer can forfeit the commodity to the Commodity Credit Corporation (CCC). With a purchase agreement, the producer may sell the commodity to the CCC.

**Production Credit Associations.** Lending groups, owned by their farmer-borrowers, that provide short and intermediate-term loans for up to 10 years from funds obtained from investors in money markets. These associations are an integral part of the Farm Credit System.

**Productive capacity.** The amount that could be produced within the next season if all the resources currently available were fully employed using the best available technology. Productive capacity increases whenever the available resources increase or the production of those resources increases.

**Productivity.** The relationship between the quantity of inputs (land, labor, tractors, feed, etc.) employed and the quantity of outputs produced. An increase in productivity means that more outputs can be produced from the same inputs or that the same outputs are produced with fewer inputs. Both single-factor and multifactor indexes are used to measure productivity. Single-factor productivity indexes measure the output per unit of one input at the same time other inputs may be changing. Multifactor productivity indexes consider all productive resources as a whole, netting out the effects of substitution among inputs. Crop yield per acre, output per work hour, and livestock production per breeding animal are all single-factor productivity indi-

cators. The Total Farm Output per Unit of Input Index is a multifactor measure.

**Public Law 480 (PL-480).** Common name for the Agricultural Trade Development and Assistance Act of 1954, which seeks to expand foreign markets for U.S. agricultural products, combat hunger, and encourage economic development in developing countries. Title I of the Food for Peace Program, as it is called, makes U.S. agricultural commodities available through long-term dollar credit sales at low interest rates for up to 40 years. Donations for emergency food relief needs are provided under Title II. Title III authorizes “food for development” grants.

**Rangeland.** Land which is predominantly grasses, grasslike plants, or shrubs suitable for grazing and browsing. Rangeland includes natural grasslands, savannahs, many wetlands, some deserts, tundra, and certain shrub communities. It also includes areas seeded to native or adapted and introduced species that are managed like native vegetation.

**Renewable resources.** Resources such as forests, rangeland, soil, and water that can be restored and improved.

**Riparian rights.** Legal water rights of a person owning land containing or bordering on a water course or other body of water in or to its banks, bed, or waters.

**RNA (ribonucleic acid).** A molecule similar to DNA that functions primarily to decode instructions for protein synthesis that are carried by genes.

**Ruminant.** Animal having a stomach with four compartments (rumen, reticulum, omasum, and abomasum). Their digestive process is more complex than that of animals having a true stomach. Ruminants include cattle, sheep and goats, as well as deer, bison, buffalo, camels, and giraffes.

**Rural.** An area that has a population of fewer than 2,500 inhabitants and is outside an urban area. A rural area does not apply only to farm residences or to sparsely settled areas, since a small town is rural as long as it meets the above criteria.

**Saline soil.** A soil containing enough soluble salts to impair its productivity for plants.

**Set-aside.** The acreage a farmer must devote to soil conserving uses (such as grasses, legumes, and small grain that is not allowed to mature), in order to be eligible for production adjustment payments and price-support loans and purchases.

**Silage.** Prepared by chopping green forage (grass, legumes, field corn, etc.) into an airtight chamber, where it is compressed to exclude air and undergoes an acid fermentation that retards spoilage. Contains about 65 percent moisture.

**Silviculture.** A branch of forestry dealing with the development and care of forests.

**Sodbuster.** A provision authorized by the Food Security Act of 1985 which is designed to discourage the conversion of highly erodible land from extensive conserving uses to intensive agricultural production. If highly erodible grassland or woodland is used for crop production without appropriate conservation measures, producers may lose eligibility for participation in many USDA programs.

**Staple.** Term used to designate length of fiber in cotton, wool, or flax.

**State Agricultural Experiment Station.** State-operated institutions, established under the Hatch Act of 1887 and connected to land-grant universities in each State, which carry out research of local and regional importance in the areas of food, agriculture, and natural resources.

**Stubble mulch.** A protective cover provided by leaving plant residues of any previous crop as a mulch on the soil surface when preparing for the following crop.

**Subsistence farm.** A low-income farm where the emphasis is on production for use of the operator and the operator’s family rather than for sale.

**Supplementary imports.** Farm products shipped into this country that add to the output of U.S. agriculture. Examples include cattle, meat, fruit, vegetables, and tobacco (see *complementary imports*).

**Sustainable agriculture.** An integrated system of plant and animal production practices having a site-specific application that will, over the long term, satisfy food and fiber needs; enhance environmental quality and

natural resources; make the most efficient use of nonrenewable resources and on-farm resources; integrate natural biological cycles and controls; sustain the economic viability of farm operations; and enhance the quality of life.

**Swampbuster.** This provision was authorized by the Food Security Act of 1985; it discourages the conversion of natural wetlands to cropland use. With some exceptions, producers converting a wetland area to cropland may lose eligibility for many USDA program benefits.

**Target prices.** A price level established by law for wheat, corn, sorghum, barley, oats, rice, and upland and extra-long-staple cotton. Farmers participating in Commodity Credit Corporation commodity programs receive the difference between the target price and either the market price during a period prescribed by law or the price support (loan) rate, whichever is higher.

**Terminal market.** A metropolitan market that handles all agricultural commodities.

**Tissue culture.** The technique of growing a whole plant from a single engineered cell or piece of plant tissue.

**Unit cost.** The average cost to produce a single item. The total cost divided by the number of items produced.

**Upland cotton.** A fiber plant developed in the United States from stock native to Mexico and Central America. Includes all cotton grown in the continental United States except Sea Island and American Pima cotton. Staple length of upland cotton ranges from 3/4 inch to 1 1/4 inches.

**Urban.** A concept defining an area that has a population of 2,500 or more inhabitants.

**Vegetative cover.** Trees or perennial grasses, legumes, or shrubs with an expected lifespan of 5 years or more.

**Viticulture.** The science and practice of growing grapes.

**Watershed.** The total land area, regardless of size, above a given point on a waterway that contributes runoff water to the flow at that point. A major subdivision of a drainage basin. The United States is generally divided into 18 major drainage areas and 160 principal

river drainage basins containing some 12,700 smaller watersheds.

**Water table.** The upper limit of the part of the soil or underlying rock material that is wholly saturated with water.

**Wetlands.** Land that is characterized by an abundance of moisture and that is inundated by surface or ground water often enough to support a prevalence of vegetation typically adapted for life in saturated soil conditions.

**Wholesale price index.** Measure of average changes in prices of commodities sold in primary U.S. markets. "Wholesale" refers to sales in large quantities by producers, not to prices received by wholesalers, jobbers, or distributors. In agriculture, it is the average price received by farmers for their farm commodities at the first point of sale when the commodity leaves the farm.

**Zoonotic diseases.** Diseases that, under natural conditions, are communicable from animals to humans.

**4-H.** Club for young people (9-19 years old) sponsored by the Agricultural Extension Service to foster agricultural, homemaking, and other skills. The 4 H's stand for Head, Heart, Hands, and Health.

**0/92.** A USDA acreage diversion program provision that allows wheat and feed grain producers to devote all or a portion of their permitted acreage to conserving uses and receive deficiency payments on that acreage. The program makes deficiency payments for a maximum of 92 percent of a farm's maximum payment acreage. Under other types of acreage diversion programs, such as acreage reduction programs, producers cannot receive deficiency payments unless permitted acres are devoted to producing a crop.

**50/92.** A USDA acreage diversion program provision that allows cotton and rice growers who plant at least 50 percent of their permitted acreage to receive 92 percent of their deficiency payments under certain conditions.

**1890 Land-Grant Colleges and Universities and Tuskegee University.** Historically Black land-grant colleges and universities. Through the Act of August 30, 1890, and several other authorities, these institutions may receive Federal funds for agricultural research, extension, and teaching.